

148164

Monday, June 27, 2016 11:39:09 AM

N900040100

Setup Start ***NS1***

Stop *NS2*

Start Date: 7/27/2016 **Start Qty:** 4.00 ***4***

Cust Item ID:

Required Date: 8/2/2016 Req'd Qty: 4.00 *1*

Customer:

DAS

Approvals: Process Plan: 13 Date: JUN 27 2016
9-89

Tooling:

Date:

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____

Date:

Stop *NR2*

**Insp.
Stamp**

Revision Nbr

D3943

E

100

0.00

100

Waterjet

FLOW CNC Waterjet

Memo

0.30

1-Cut as per Dwg D3943

Dwg Rev: E

Prog Rev: 15

2-Deburr if necessary

110

QC2- Inspect parts off machine FAI/FAIB

0.00

110

QC

Quality Control

Memo

0.01

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

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Work Order ID 148164

Monday, June 27, 2016 11:39:09 AM

148164

Page 2

Item ID: D3943-5

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Plate

Start Date: 7/27/2016 Start Qty: 4.00

4

Cust Item ID:

Required Date: 8/2/2016 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* Mill Conv Conventional Milling Machine	Manufacture as per dwg Memo 1-OPEN TO TAP DRILL SIZE FOR 5/8" THREAD 2-DRILL TAP 1/4"-28 AS PER DWG 3-MILL RAD	0.00 0.32				4	0		DAS 32 9-89 16-08-19
140 *140* QC Quality Control	QC2- Inspect parts off machine FAI/FAIB Memo	0.00 0.01				4	0		DAS 32 9-89 16-08-19
145 *145* QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.01				4	0		DAS 33 9-89 16-08-20

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
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Root Cause		FAULT CATEGORY							
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Run Start ***NR1***

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Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	Identify as per dwg & Stock Location: _____	0.00				4		DAS 6 9-89	
150									
Packaging	Memo	0.01							
Packaging	LOCATION: WA002								
160	QC21- Final Inspection - Work Order Release	0.00							
160									
QC	Memo	0.07						DAS 21 9-89	
Quality Control									

AUG 2 3 2016

AUG 2 3 2016

DAS
21
9-89 AUG 2 3 2016

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Contamination ☐	Out of Sequence ☐	Part Moved ☐																																																																		
Countersink ☐	Off-set ☐	Drawing ☐																																																																		
Cut Too Short ☐	Mislabeled ☐	Finish ☐																																																																		
Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐																																																																		
Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐																																																																		
OTHER : _____																																																																				

• Picklist Print

Monday, June 27, 2016 11:39:09 AM

Page 1

Work Order ID: 148164

148164

Parent Item: D3943-5

D3943-5

Parent Item Name: Plate

Start Date: 7/27/2016

Required Date: 8/2/2016

Start Qty: 4.00

Required Qty: 4.00

Comments: Est Rev:A New Issue 09-06-03 JLM Verified By:EC IPP Rev:B as
per dwg REV.C DD 10.02.22 verified by:EC IPP REV:C 11.08.16 AS
PER REV.E DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M1010B0.375X03.500

Purchased

No

100

f

10.0000

0.13

0.547368

M1010B0 375X03 500

PR 2016/08/17

1010-1025 Steel Bar .375 x 3.500

Location

Loc Qty

Loc Code

MAT036

10

M128713

10

0.4

DQA: _____ Date: _____

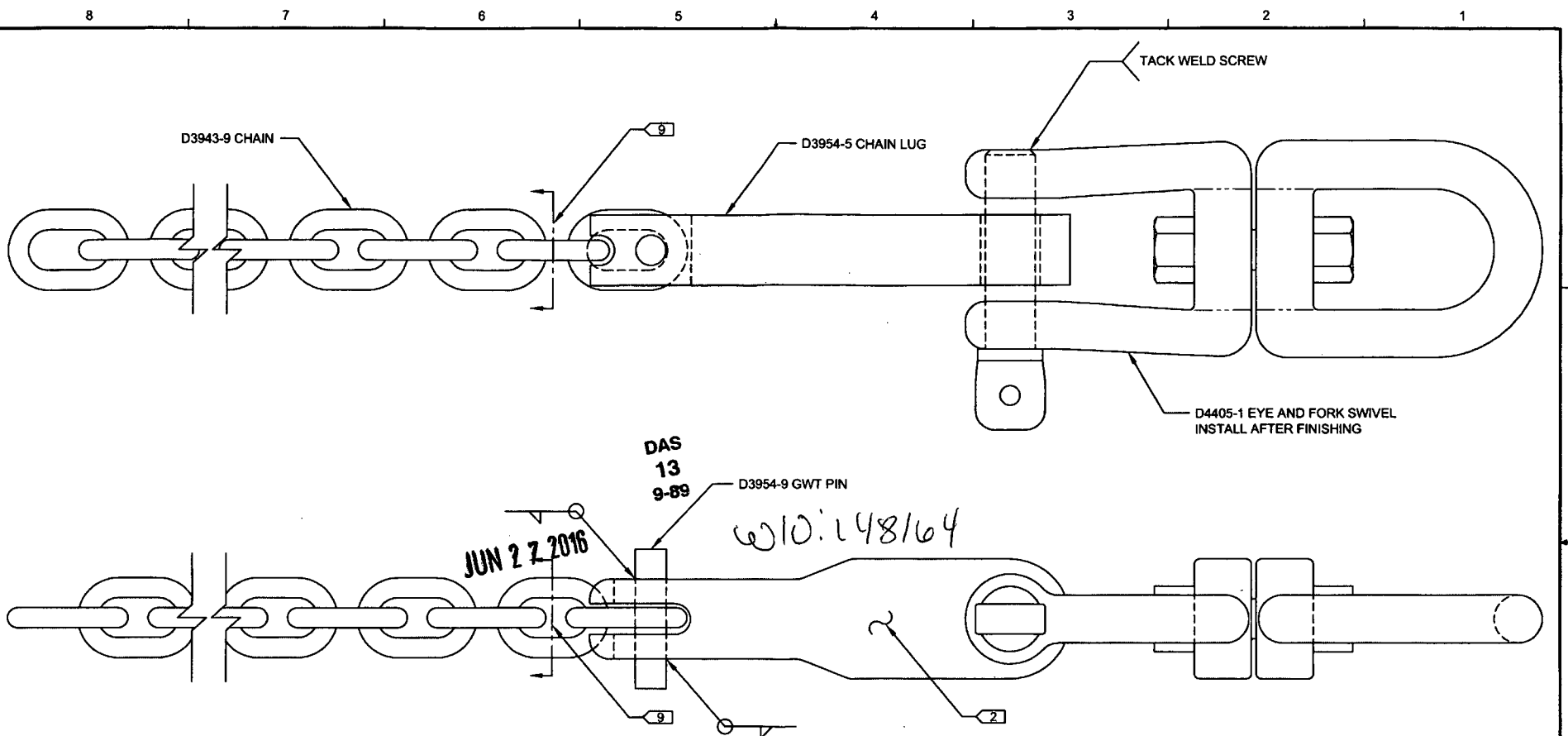
**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					

Root Cause			FAULT CATEGORY					
Environment ☐	☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	☐	Past Due ☐						



D3943-053 CHAIN ASSEMBLY

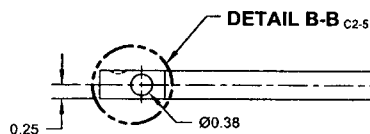
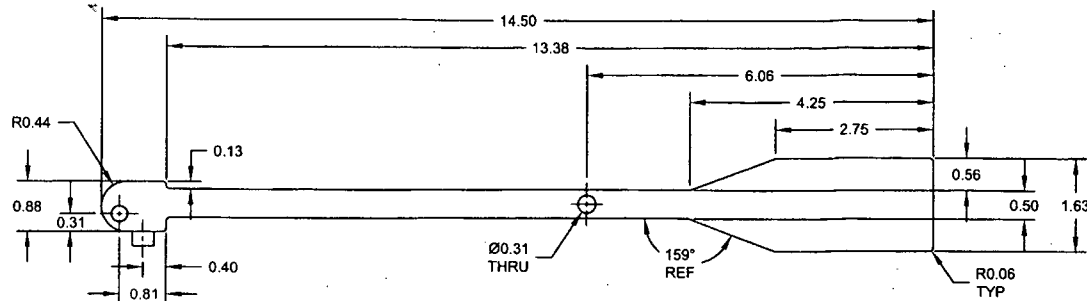
NOTES -053:

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT HYBRID SAFETY YELLOW (4.3.5.12) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: N/A
- 8) WELD PER QSI 004
- 9) MASK CHAIN FROM THIS POINT ON PRIOR TO FINISHING

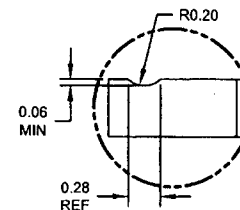
RELEASED
2011-07-29
MD

DESIGN	DSTOW / AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN		DRAWING NO.	REV. E
CHECKED	ASS	D3943	SHEET 4 OF 5
MFG. APPR.		TITLE	SCALE
APPROVED		GROSS WEIGHT TOW CRANK ASSY	NTS
DE APPR.	N/A	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DATE	11.07.27		

8 7 6 5 4 3 2 1



D3943-3 HANDLE EXTENSION



DETAIL B-B C7-5
(DIMPLE DETAIL)
(SCALE 2X)

NOTES:

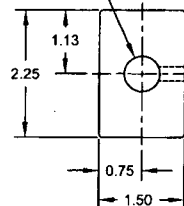
1) MATERIAL -3: AISI 304/316 STAINLESS STEEL SHEET
ANNEALED 2B FINISH PER MIL-S-5059
OR AMS 5513 (304) OR AMS 5524 (316)
OR ASTM A240 OR ASME SA240
REF DART SPEC M304S
OR:
AISI 303 STAINLESS STEEL SHEET
ANNEALED 2B FINISH PER MIL-S-5059
ASTM A240 OR ASME SA240
REF DART SPEC M303S

-5: MILD STEEL, SHEET
AISI 1010-1025 OR ASTM A36/A366/A1008
OR CSA G40-21, 38W/44W/50W/60W/70W
REF DART SPEC M1010-S
OR:
MILD STEEL, BAR
AISI 1010-1025 OR ASTM A36/A366/A569/A570
OR CSA G40-21, 38W/44W/50W/60W/70W
REF DART SPEC M1010-B

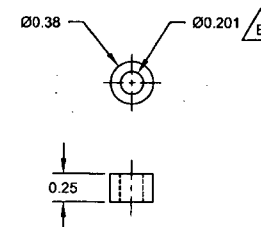
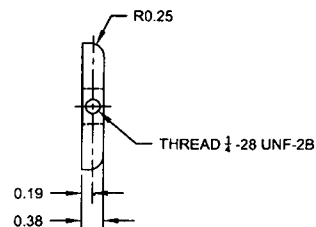
-7: MILD STEEL, ROUND BAR
AISI 1018-1025
PER MIL-S-7097
REF DART SPEC M1018-R

2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: N/A

THREAD $\frac{5}{16}$ -11 UNC-2B



D3943-5 PLATE



D3943-7 STUD
(SCALE 2X)

RELEASED
2011-07-28

DESIGN	DSTOW / AJS	DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>ASS</i>	DRAWING NO.	REV. E
MFG. APPR.	<i>7/1/27</i>	D3943	SHEET 5 OF 5
APPROVED		TITLE	SCALE
DE APPR.	<i>N/A</i>	GROSS WEIGHT TOW CRANK ASSY NTS	
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8 7 6 5 4 3 2 1